

QHIN Conformance Testing Process: User Guide

For the Sequoia Interoperability Testing Platform

Version History

Version	Description of Change	Version Date
1.0	Initial Publication	May 31, 2023

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1 INTRODUCTION

1.1 Purpose of Document

This document describes how to use the Sequoia Interoperability Testing Platform (ITP) tools and run the test cases for the Qualified Health Information Network (QHIN) Conformance Testing Process. This is limited to the [QHIN Technical Framework \(QTF\) Version 1](#); the information outlined in the Common Agreement, and related QHIN Testing Process document(s).

Changes to the QHIN Testing Process documents may be updated in accordance with the QTF, which may be updated in accordance with changes to industry standards and specifications.

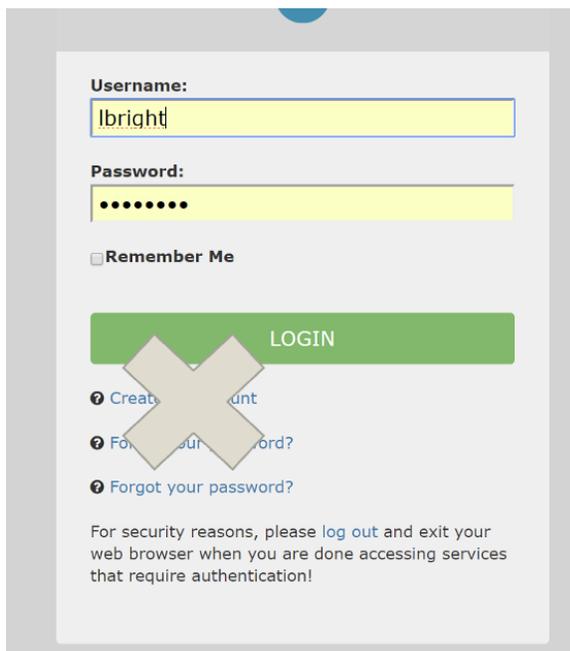
1.2 Prerequisites – Getting Started

1.2.1 Applying to the Conformance Testing Process

To begin the QHIN Conformance Testing Process you will be required to complete the [QHIN Application Materials](#). Once your application has been approved, your organization will be referred to testing and users will be provisioned to the tooling. The Sequoia Project testing team will schedule a testing kick off call to orient your users on how to navigate the tooling components to complete testing.

If additional users need to be added, please send their name, email, and phone number to qhintesting@sequoiaproject.org.

DO NOT USE THE “CREATE AN ACCOUNT” FEATURE TO ADD NEW USERS!



1.2.2 Activating User Accounts

Sequoia staff will create your organization’s accounts and the tooling will send automated activation emails to new users. Their user ID will be contained in the email. New Users must validate their email address by clicking the link in the activation email.

1.2.3 Password Resets

Passwords can be reset by clicking the “Forgot your password?” link on the login page.

The image shows a login form with the following elements:

- Username:** A text input field containing the text "lbright".
- Password:** A password input field with seven black dots representing the password.
- Remember Me:** A checkbox that is currently unchecked.
- LOGIN:** A green rectangular button with the text "LOGIN" in white.
- Links:** Three links with question mark icons: "Create an account", "Forgot your password?", and another "Forgot your password?". The second "Forgot your password?" link is circled in red.
- Security Notice:** A paragraph of text at the bottom: "For security reasons, please log out and exit your web browser when you are done accessing services that require authentication!"

An email will be sent to the users registered email address from no-reply@validation.sequoiaproject.org with the subject "Gazelle-Password assistance". Click on the link in the email to complete the password reset process.

The following browsers are supported for use of Gazelle:

- Firefox
- Chrome
- Safari

2 GAZELLE SECURITY SUITE

Security tests are done using a tool called the Gazelle Security Suite, which can be accessed by going to <https://validation.sequoiaproject.org/> and selecting the Gazelle Security Suite link.

Test Tools	Version	Description
Gazelle Security Suite	6.3.1	TLS/Certificate debugging, Security Tests, PKI, TLS Simulators, syslog, and ATNA Questionnaire
Patent Manager	9.16.3	Tools for QHIN Patient Discovery (ITI-55)
NIST Toolkit	7.7.10a	Tools for QHIN Document Query (ITI-38), Document Retrieve (ITI-39), and Message Delivery (ITI-80)
EVS Client	5.14.4	External Validation tool services
Support Tools	Version	Description
Gazelle Test Management	6.2.3	The Gazelle Test Management Test Bed: Administrative Use Only
Assertion Manager Gui	4.2.2	Assertion coverage management: Administrative Use Only
Utilities	Version	Description
SSO login		SSO login

The list of tests that can be run is accessed through the menu items XUA -> X-Service Provider tests -> Test Cases.

Gazelle Security Suite

PKI ▼ TLS / SSL ▼ Audit Trail ▼ XUA ▼

- Class documentation
- Constraint documentation
- Constraint administration
- X-Service Provider tests
- Test cases**
- Test instances
- Ancillary transactions

OVERVIEW

The GAZELLE ATNA Tool gathers several...
 • A Public Key Infrastructure, to share trusted certificates and associated...
 • A TLS simulator that will simulate clients and servers that can establish...
 • The ATNA questionnaire.

DIGITAL CERTIFICATES for Conformity Assessment Testing :

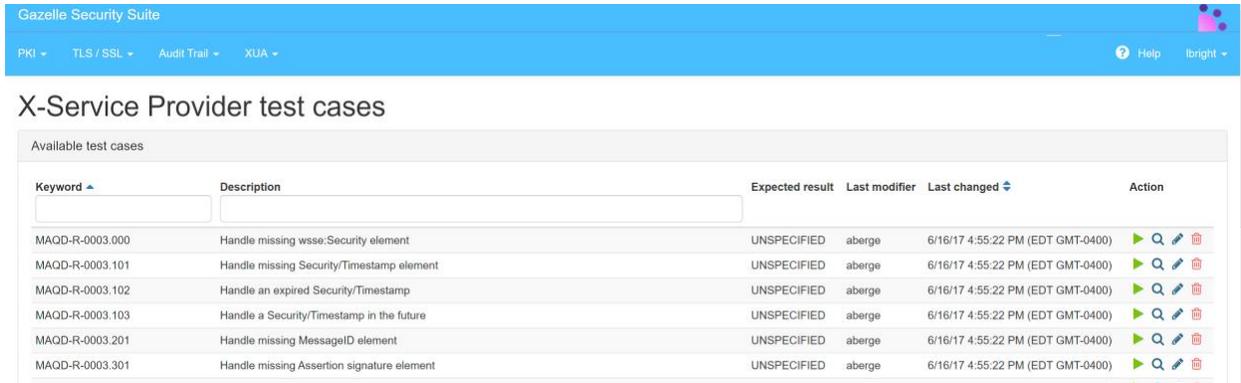
The CA certificate is available [here](#).

TEST YOUR TLS IMPLEMENTATION:

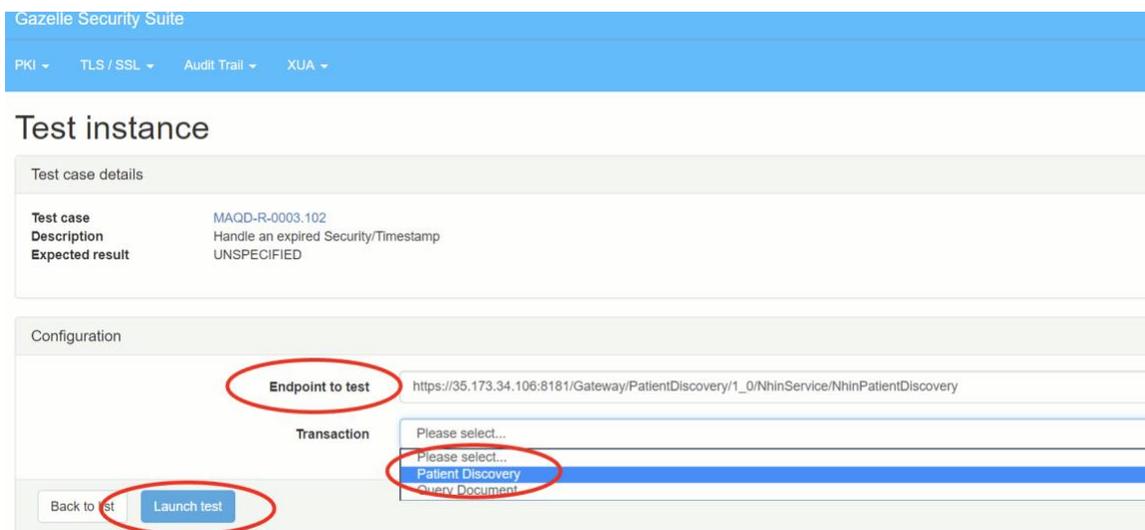
- TLS SERVER SIMULATORS:** To check your SUT as a **consumer/client**, the tool will act as a server. You may connect to :
 - HTTPS server (<domain_or_IP>:20011)
 - Syslog server (<domain_or_IP>:20009)
 - "Any" server (<domain_or_IP>:20070)
- TLS CLIENT SIMULATORS:** To check your SUT as a **provider/server**, the tool will act as a client. You can start a connection from [these TLS client simulator](#)

Edit home content

From the list of test cases, find the test you want to run and click the green arrow to the right of the screen to create an instance of that test.



Inside the test instance, type your system’s Patient Discovery endpoint address into the text box labeled “Endpoint to test”. Select Patient Discovery from the Transaction drop-down menu, and click “Launch Test” to run the test.



The Gazelle Security Suite will send a test message to your system and display the message that was sent and the response.

The screenshot displays the 'Gazelle Security Suite' interface. At the top, there are navigation tabs for 'PKI', 'TLS / SSL', 'Audit Trail', and 'XUA'. The main heading is 'Test instance #5128'. Under 'Test metadata', the following fields are listed: 'Test case' (MACDRA-0003.000), 'Permanent Link' (#5128, circled in red), 'Tested endpoint' (https://validation.sequoiaproject.org:14430/PAMSimulator-ebj/RespondingGateway_Service/RespondingGateway_PortType?wsdl), 'Ancillary transaction' (PD - Patient Discovery), 'Execution date' (5/2/23 11:09:29 AM (EDT GMT-0400)), and 'Username' (lbright). A 'Status' dropdown menu is set to 'UNKNOWN'. A 'Back to list' button is located below the metadata. The 'Exchanged messages' section shows a message received from the SUT with the following XML content:

```
<?xml version="1.0" encoding="UTF-8"?>
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope">
<env:Header>
<MessageID xmlns="http://www.w3.org/2005/08/addressing">um:uuid:0d5a930f-587f-4012-8c30-1bade3102d83</MessageID>
<To xmlns="http://www.w3.org/2005/08/addressing"> https://validation.sequoiaproject.org:14430/PAMSimulator-ebj/RespondingGateway_Service/RespondingGateway_PortType?wsdl</To>
<Action xmlns="http://www.w3.org/2005/08/addressing" env:mustUnderstand="true">urn:h17-org:v3:PRPA_IN201305UV02:CrossGatewayPatientDiscovery</Action>
<ReplyTo xmlns="http://www.w3.org/2005/08/addressing">
<Address>http://www.w3.org/2005/08/addressing/anonymous</Address>
```

Record the permanent link to the test to submit as your test result to your Test Manager. Remember to also record your ATNA audit log for this test to be submitted to your Test Manager by email at qhintesting@sequoiaproject.org.

3 PATIENT DISCOVERY TOOL

Patient Discovery tests are done using a tool called the Patient Manager, which can be accessed by going to <https://validation.sequoiaproject.org/> and selecting the Patient Manager link.



Test tools	Version	Description
Gazelle Security Suite	6.3.1	TLS/Certificate debugging, Security Tests, PKI, TLS Simulators, syslog, and ATNA Questionnaire
PatientManager	9.16.3	Tools for QHIN Patient Discovery (ITI-55)
IHE ITI Toolkit	7.7.10a	Tools for QHIN Document Query (ITI-38), Document Retrieve (ITI-39), and Message Delivery (ITI-80)
EVS Client	5.14.4	External Validation tool services
Support Tools	Version	Description
Gazelle Test Management	6.2.3	The Gazelle Test Management Test Bed: Administrative Use Only
Assertion Manager Gui	4.2.2	Assertion coverage management: Administrative Use Only
Utilities	Version	Description
SSO login		SSO login

3.1 As an Initiating Gateway

To run Patient Discovery tests as an Initiating Gateway, configure your system to send a PD message to the Patient Manager tool, using the endpoint and Home Community ID found on the XCPD Responding Gateway page. The endpoint information can be found under the menu option XCPD -> Responding Gateway.

XCPD Responding Gateway

Endpoint
 https://validation.sequoiaproject.org:14430/PAMSimulator-
 ejb/RespondingGateway_Service/RespondingGateway_PortType?wsdl
 Receiver device.id root OID
 2.16.840.1.113883.3.7204.1.3.1.2
 Receiver organization OID
 2.16.840.1.113883.3.7204.1.3.1.2
 Home Community ID
 2.16.840.1.113883.3.7204.1.3.1.2

Send a Patient Discovery Message with the Patient Demographics required in the test to the Gateway. The Gateway will respond with information about the matching patient. You can find the results of the test under the HL7 Messages link at the top of the screen. Click on the magnifying glass icon to see the messages for that test instance.

Messages browser

The administrator has restricted the access to the messages. You are only seeing the messages sent by anonymous users.

Timestamp	Transaction	Initiator	Responder	Request	Response	Action
8/14/20 8:24:27 AM (CEST GMT+0200)	ITI-55	PatientManager (INIT_GW)	ADVault (RESP_GW)	PRPA_IN201305UV02	PRPA_IN201306UV02	Q 🔍 🔄
8/13/20 11:47:52 PM (CEST GMT+0200)	ITI-55	PatientManager (INIT_GW)	BSCC (RESP_GW)	PRPA_IN201305UV02	PRPA_IN201306UV02	Q 🔍 🔄
8/13/20 11:47:30 PM (CEST GMT+0200)	ITI-55	PatientManager (INIT_GW)	BSCC (RESP_GW)	PRPA_IN201305UV02	PRPA_IN201306UV02	Q 🔍 🔄
8/13/20 11:14:10 PM (CEST GMT+0200)	ITI-55	PatientManager (INIT_GW)	BSCC (RESP_GW)	PRPA_IN201305UV02	PRPA_IN201306UV02	Q 🔍 🔄
8/13/20 11:12:57 PM (CEST GMT+0200)	ITI-55	PatientManager (INIT_GW)	BSCC (RESP_GW)	PRPA_IN201305UV02	SOAP Fault	Q 🔍 🔄
8/13/20 11:12:29 PM (CEST GMT+0200)	ITI-55	PatientManager (INIT_GW)	BSCC (RESP_GW)	PRPA_IN201305UV02	SOAP Fault	Q 🔍 🔄
8/13/20 11:11:49 PM (CEST GMT+0200)	ITI-55	PatientManager (INIT_GW)	BSCC (RESP_GW)	PRPA_IN201305UV02	SOAP Fault	Q 🔍 🔄
8/13/20 10:49:26 PM (CEST GMT+0200)	ITI-55	PatientManager (INIT_GW)	BSCC (RESP_GW)	PRPA_IN201305UV02	PRPA_IN201306UV02	Q 🔍 🔄

Each will have information about that instance including timestamp, initiating and responding systems, and a permanent link to the test instance and test report, as well as the request and response messages

The screenshot displays an external validation report for an XML document. The report title is "External Validation Report" and it shows a "Validation result (Status: FAILED)".

General Information:
 Validation Date: 2023, 03 23 - 02:19:22
 Validation Service: QHIN HL7v3 Validator (ITI-55) Cross Gateway Patient Discovery Request
 Validation Test Status: **Failed**

Result Overview:
 XML: **Failed**
 ModelBased Validation: **Failed**

XML Validation Report:
 The document you have validated is supposed to be an XML document. The validator has checked if it is well-formed, results of this validation are gathered in this part.

- error: cvc-datatype-valid.1.2.3: 'urn:oid:1.3.6.1.4.1.22812.40.62020.1' is not a valid value of union type 'uid' (see line 21, column 62)
- error: cvc-attribute.3: The value 'urn:oid:1.3.6.1.4.1.22812.40.62020.1' of attribute 'root' on element 'NF' is not valid with respect to its type, 'uid' (see line 21, column 62)
- error: cvc-datatype-valid.1.2.3: 'urn:oid:1.3.6.1.4.1.22812.40.62020.1' is not a valid value of union type 'uid' (see line 24, column 70)
- error: cvc-attribute.3: The value 'urn:oid:1.3.6.1.4.1.22812.40.62020.1' of attribute 'root' on element 'NF' is not valid with respect to its type, 'uid' (see line 24, column 70)
- error: cvc-complex-type.4: Attribute 'classCode' must appear on element 'assignedDevice' (see line 32, column 28)
- error: cvc-complex-type.2.4.a: Invalid content was found starting with element 'semanticText'. One of [{"urn:hl7-org:v3":realmCode, "urn:hl7-org:v3":typeId, "urn:hl7-org:v3":templateId, "urn:hl7-org:v3":value}] is expected. (see line 44, column 36)
- error: cvc-complex-type.2.4.b: The content of element 'patientTelecom' is not complete. One of [{"urn:hl7-org:v3":value, "urn:hl7-org:v3":semanticText}] is expected. (see line 77, column 34)

Model Based Validation details:
 Result: **Failed**
 Summary: 59 checks, 4 errors, 1 warning, 0 infos

Errors:
 Test Location: constraint_mccim000100UV01_deviceid
 IPRPA_IN201305UV02/sendToDevice
 Description: IHE restriction: id.root SHALL be an ISO OID, and id extension SHALL not have a value (Table O.1.1-1: Model Attributes) [Assertion...]

When a passing validation is achieved for both request and response, send the permanent link to your Test Manager. Remember to also record your ATNA audit log for this test. Submit results to your Test Manager by email at qhintesting@sequoiaproject.org.

3.2 As a Responding Gateway

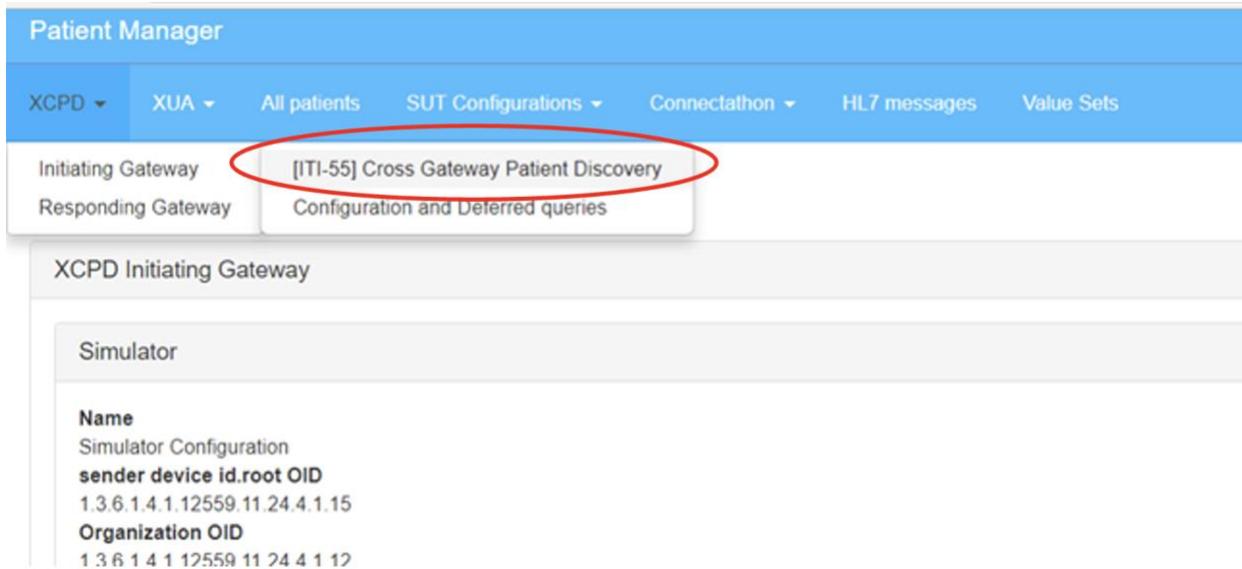
The test patient data will need to be pre-loaded into your system and can be found on the RCE website [here](#).

Go to the SUT Configurations and make sure that your system has been set up as a known HL7v3 Responder and that the endpoint is correct. If the information is not correct, contact your Test Manager for assistance via an email to qhintesting@sequoiaproject.org.

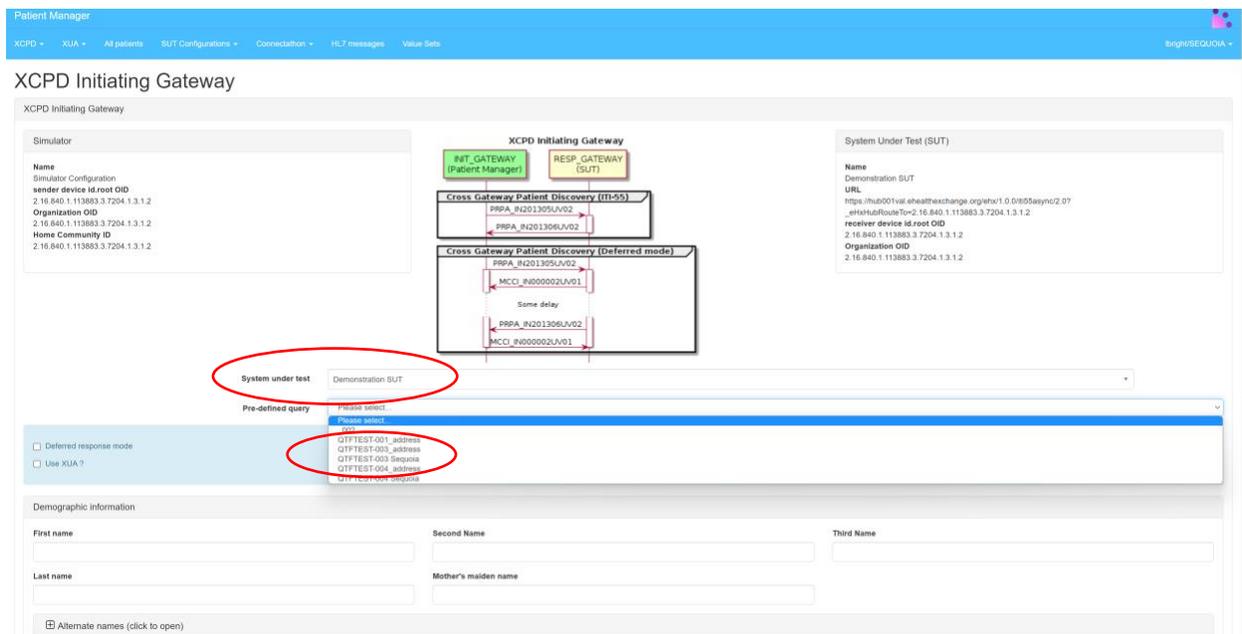
The screenshot shows the "Patient Manager" interface. The "SUT Configurations" menu item is circled in red. Below it, the "HL7v3 Responders" section is visible, containing a table of systems under test.

Name	System name	Endpoint
Epic	Epic	https://open-ic.epic.com/interconnect-ce-2015/wcf/epic_community_hie/xcpdrespondinggatewaysync_svc
SIMULATOR - PDQV3 Supplier	Patient Manager - PDQV3 Supplier	http://localhost:8080/FAMSimulator-epb/PLQ3Supplier_Service/PLQ3Supplier_PortType?wsdl
SIMULATOR - PIXV3 Manager	Patient Manager - PIXV3 Manager	http://localhost:8080/FAMSimulator-epb/PIX3Manager_Service/PIX3Manager_PortType?wsdl

Go to the XCPD Initiating Gateway menu and select [ITI-55] Cross-Gateway Patient Discovery.



Select your system from the System under test list and then select the pre-defined query for the test you are running. The Patient Manager will populate the patient demographics needed. Click “Send Message” to run the test and send the message to your System.



The system will display the test results, including the message sent, and the response.

The screenshot displays the Patient Manager interface. At the top, there is a navigation bar with links for XCPD, XUA, All patients, SUT Configurations, Connectathon, HL7 messages, and Value Sets. The main heading is "Transaction instance details (#18537)".

Metadata

- Timestamp: 8/13/20 11:47:52 PM (CEST GMT+0200)
- Simulated actor: Initiating Gateway
- Domain: IT-Infrastructure
- Transaction: ITI-55
- Initiator: PatientManager (Initiating Gateway)
- Responder: BSCC (Responding Gateway)
- Permanent link: <https://validation.sequoiaproject.org/PatientManager/messages/messageDisplay.seam?id=18537>
- Permanent link to test report: <https://validation.sequoiaproject.org/PatientManager/rest/GetReport?id=18537>

Request: PRPA_IN201305UV02 Response: PRPA_IN201306UV02

Message metadata

- Message ID: 1.3.6.1.4.1.12559.11.24.4.1.17.1:7568

XML

```
<?xml version="1.0" encoding="UTF8" standalone="yes"?>
<PRPA_IN201305UV02 ITSVersion="XML_1.0" xmlns="urn:hl7-org:v3">
<id extension="7568" root="1.3.6.1.4.1.12559.11.24.4.1.17.1">
<sequenceNumber value="500084924748"/>
</id>
</PRPA_IN201305UV02>
</?xml>
```

The footer of the application includes links for About, Contact us, Issue Tracker, and Copyright 2020 IHE International. The language is set to English.

As for the Initiating Gateway tests, validate the messages, and report your permanent link for your passing test to your Test Manager. Remember to also record your ATNA audit log for this test. Submit results to your Test Manager by email at qhintesting@sequoiaproject.org.

4 NIST TOOLKIT

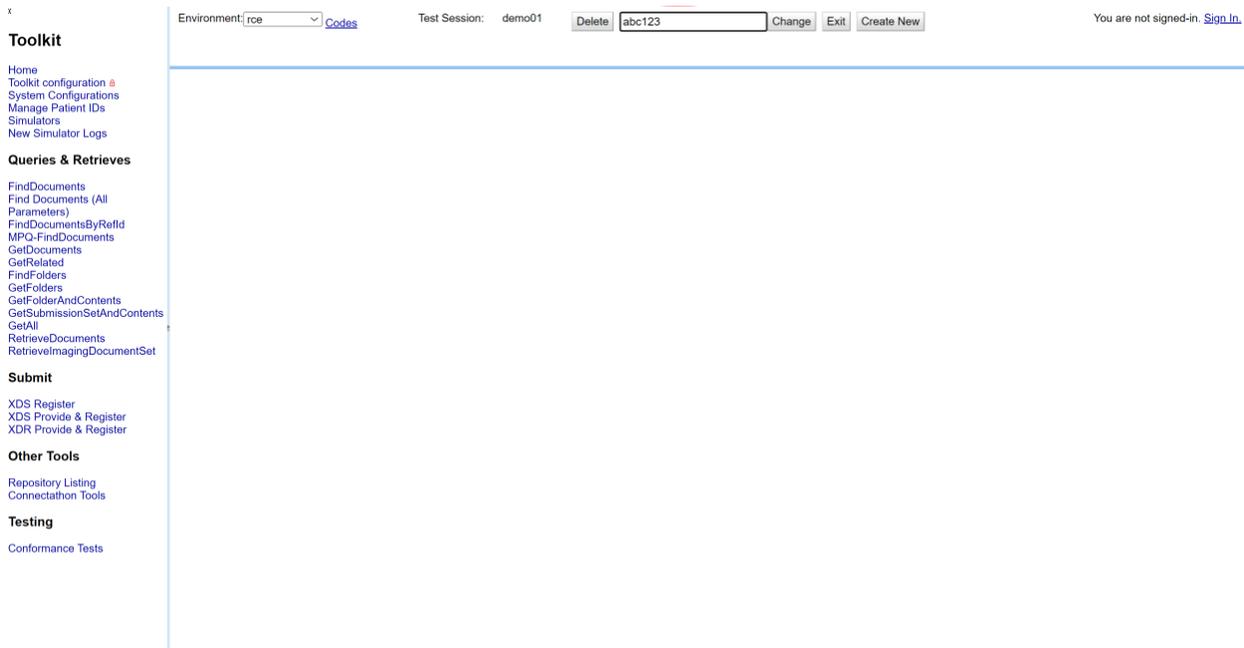
Query for Documents, Retrieve Documents, Message Delivery, and Alternate Purpose of Use Tests are done using the NIST Toolkit which can be found by going to <https://validation.sequoiaproject.org> and selecting the “NIST Toolkit” link.



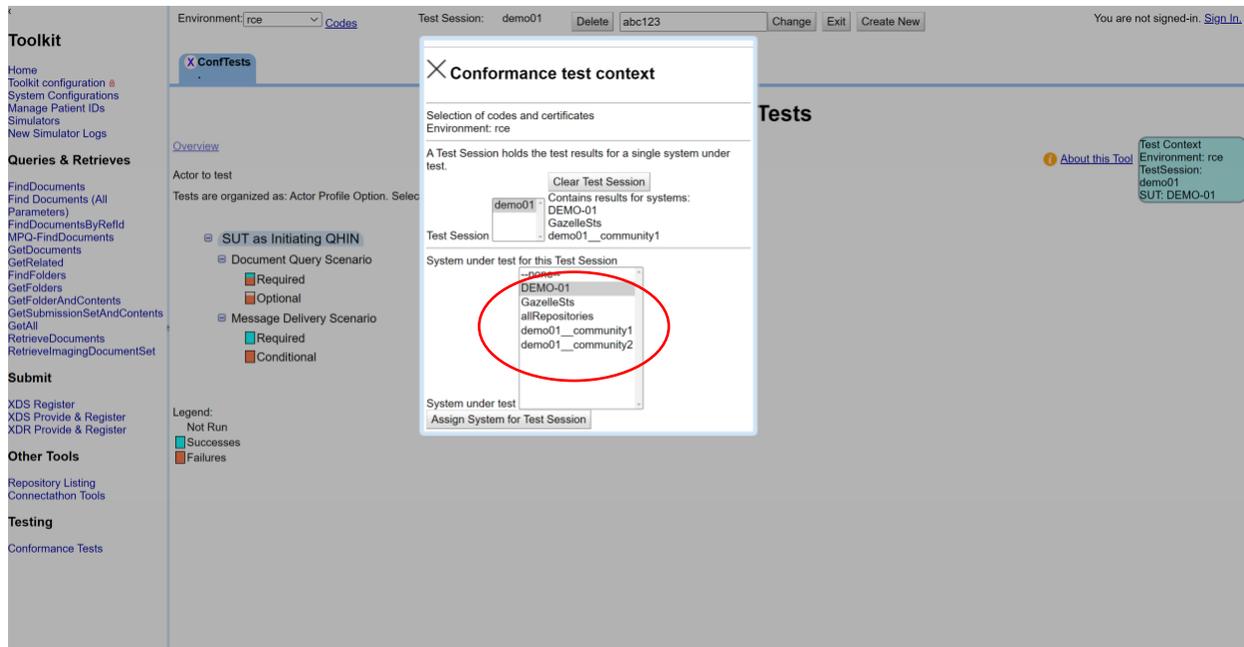
Test tools	Version	Description
Gazelle Security Suite	6.3.1	TLS/Certificate debugging, Security Tests, PKI, TLS Simulators, syslog, and ATNA Questionnaire
PatientManager	9.16.3	Tools for QHIN Patient Discovery (ITI-55)
NIST Toolkit	7.7.10a	Tools for QHIN Document Query (ITI-38), Document Retrieve (ITI-39), and Message Delivery (ITI-80)
EVS Client	5.14.4	External Validation tool services
Support Tools	Version	Description
Gazelle Test Management	6.2.3	The Gazelle Test Management Test Bed: Administrative Use Only
Assertion Manager Gui	4.2.2	Assertion coverage management: Administrative Use Only
Utilities	Version	Description
SSO login		SSO login

4.1 XDS Toolkit Test Session Setup

Your Sequoia Project Test Manager will create a Test Session for you. The Test Session ID will be assigned by your Test Manager. Select your test session by typing the name in the text box at the top of the screen.



Your Sequoia Project Test Manager will create all the systems and simulators you will need. Select the system you want to test by clicking the blue Test Context button on the right and selecting the system from the list.



Select "Conformance Tests" from the menu on the right. This will bring up the groups of tests available. Tests are categorized as being: for an Initiating or Responding Gateway; for the

Document Query (QD) Document Retrieve (RD) or Message Delivery (MD) scenarios; and as Required, Optional, or Conditional. Select the tests you want to run by clicking on the name

The screenshot shows a web application interface for managing conformance tests. At the top, there are navigation elements: 'Environment: rce' with a dropdown arrow and a 'Codes' link; 'Test Session: demo01' with 'Delete', 'abc123', 'Change', 'Exit', and 'Create New' buttons; and a user status 'You are not signed-in. [Sign In](#).' Below this is a 'X ConfTests' tab. The main heading is 'Conformance Tests'. On the left is a 'Toolkit' sidebar with categories: 'Home' (Home, Toolkit configuration, System Configurations, Manage Patient IDs, Simulators, New Simulator Logs), 'Queries & Retrieves' (FindDocuments, Find Documents (All Parameters), FindDocumentsByRefId, MPQ-FindDocuments, GetDocuments, GetRelated, FindFolders, GetFolders, GetFolderAndContents, GetSubmissionSetAndContents, GetAll, RetrieveDocuments, RetrieveImagingDocumentSet), 'Submit' (XDS Register, XDS Provide & Register, XDR Provide & Register), and 'Other Tools' (Repository Listing, Connection Tools). The 'Testing' category is circled in red and contains 'Conformance Tests'. The main content area shows 'Actor to test' and 'Tests are organized as: Actor Profile Option. Select the option you are interested in.' It lists two main categories: 'SUT as Initiating QHIN' and 'SUT as Responding QHIN'. Each category has sub-scenarios: 'Document Query Scenario' and 'Message Delivery Scenario'. Under 'Document Query Scenario', there are checkboxes for 'Required', 'Optional', and 'Conditional'. Under 'Message Delivery Scenario', there are checkboxes for 'Required' and 'Conditional'. A legend at the bottom left indicates: 'Not Run' (grey square), 'Successes' (green square), and 'Failures' (red square). A 'Test Context' tooltip on the right shows: 'Environment: rce', 'TestSession: demo01', and 'SUT: DEMO-01'.

4.2 Responding Gateway Tests

Make sure the endpoints listed under System Under Test Configuration are correct. If you are doing the tests with TLS, make sure the SAML and TLS boxes are checked. You do not need to initialize the testing environment.

The first test listed, RG.Init, must be run first, and must be successful before any other Responding Gateway tests will work. This test sends a PD request to your system and retrieves your internal ID for the test patients, which it stores and uses to populate future the QD, RD, and MD tests.

The screenshot displays the 'Conformance Tests' page in the XDS Toolkit. The interface includes a sidebar with navigation options like 'Home', 'Toolkit configuration', and 'Queries & Retrieves'. The main content area is titled 'Conformance Tests' and contains several sections:

- Testing Environment:** Contains instructions on how to initialize the Responding Gateway and corresponding backend systems. It includes a 'Reset' checkbox and checkboxes for 'SAML' and 'TLS'. A red circle highlights these checkboxes and the 'Initialize Testing Environment' button below them.
- System Under Test Configuration:** A table with columns for 'Endpoints and IDs', 'Secure', and 'Non-secure'. It lists various endpoints such as 'Cross-Community Query', 'Cross-Community Retrieve', 'XCPD Query', and 'HomeCommunityId'. A red circle highlights this table.
- Supporting Environment Configuration:** A section for configuring the supporting environment, including 'System' (set to None) and 'Utilities run to initialize environment'. A red circle highlights this section.

At the bottom of the page, a test list is visible, with the first entry 'Test: RG.Init - RG.Init' circled in red. The test is dated 'May 01, 2023' and has a 'TLS' icon.

Scroll down to the bottom of the page to see the test list. You can click on the arrow beside the Test Group name to run all of the tests in the group, or you can click on the individual tests to run just that one.

For Responding Gateway tests, the running test will send messages to your system and wait for a response. Tests that have passed will turn blue, failed test will be red.

The screenshot shows the 'Conformance Tests' page in the QHIN Conformance Testing Process. At the top, there's a navigation bar with 'Environment: rca', 'Codes', 'Test Session: demo03', and buttons for 'Delete', 'Change', 'Exit', and 'Create New'. A sidebar on the left contains a 'Toolkit' menu with options like 'Home', 'Toolkit configuration', 'System Configurations', 'Manage Patient IDs', 'Simulators', and 'New Simulator Logs'. Below that are 'Queries & Retrieves' and 'Submit' sections. The main area is titled 'Supporting Environment Configuration' and shows 'System: None' and 'Utilities run to initialize environment'. A table summarizes test results:

Tests:	12
Successes:	2
Failures:	1
Not Run:	9

Below the table is a list of tests, each with a status icon (eye, trash, or warning) and a link to view details. The tests include:

- Test: RG.Init - RG.Init 11:29 May 01, 2023
- Test: RG.Basic.PatientDiscovery - XCPD Find Patient QTFTEST-004 11:21 May 02, 2023
- Test: RG.Query.FindDocuments.Minimal - Responding Gateway responds to minimal FindDocuments queries 11:21 May 02, 2023
- Test: RG.Basic.Retrieve - Gateway responds to request to retrieve single document 11:21 May 02, 2023
- Test: RG.DocQuery1_secondpurposeofuse.TREATMENT - Test for Purpose of Use: TREATMENT
- Test: RG.DocQuery1_secondpurposeofuse.REQUEST - Test for Purpose of Use: REQUEST
- Test: RG.DocQuery1_secondpurposeofuse.COVERAGE - Test for Purpose of Use: COVERAGE
- Test: RG.DocQuery1_secondpurposeofuse.OPERATIONS - Test for Purpose of Use: OPERATIONS
- Test: RG.DocQuery1_secondpurposeofuse.PAYMENT - Test for Purpose of Use: PAYMENT
- Test: RG.DocQuery1_secondpurposeofuse.PUBLICHEALTH - Test for Purpose of Use: PUBLICHEALTH
- Test: RG.DocQuery2_secondpurposeofuse.LEGACY-TREATMENT - Test for Purpose of Use: Legacy Value for Treatment
- Test: RG.DocQuery2_secondpurposeofuse.REASSURANCE - Test for Purpose of Use: Undefined Coded Value for Treatment
- Test: RG.DocQuery2_secondpurposeofuse.TREATMENT-OID - Test for Purpose of Use: Incorrect OID for Coding System

Clicking on the test and then the test step name will show you the results of the test. To see the logs, click on the eye symbol to bring up the Results Inspector tab. Clicking on the garbage can symbol will erase the test results and let you try again.

The screenshot shows the 'Results Inspector' for the test 'Test: RG.Basic.Retrieve - Gateway responds to request to retrieve single document'. The interface includes a 'View Interaction Sequence' section with a 'View Test Step' button. Below that, there's a 'View Metadata' section with 'Goals' and 'Errors'.

The 'Errors' section shows a message:

```
Internal Error: Retrieve Error: endpoint was: No endpoint configured for SOAP action urn:hl7:2007:CrossGatewayRetrieve Exception: XdsInternalException: Retrieve Error: endpoint was: No endpoint configured for SOAP action urn:hl7:2007:CrossGatewayRetrieve
```

Below the error message is a 'Use Reports' table:

Name	UseAs	Value	Test	Section	Step
\$document01_uniqueId\$	\$docId\$	1.2.42.2022110204919.68	RG Query FindDocuments.Minimal	02a-leaf-class-approved	02a-leaf-class-approved
\$document01_home\$	\$home\$	urn:oid:1.1.4567334.1.1	RG Query FindDocuments.Minimal	02a-leaf-class-approved	02a-leaf-class-approved
\$document01_repository\$	\$repositoryId\$	1.1.4567332.1.15	RG Query FindDocuments.Minimal	02a-leaf-class-approved	02a-leaf-class-approved
\$document01_uniqueId\$	\$docId\$	1.2.42.2022110204919.68	RG Query FindDocuments.Minimal	02a-leaf-class-approved	02a-leaf-class-approved
\$document01_home\$	\$home\$	urn:oid:1.1.4567334.1.1	RG Query FindDocuments.Minimal	02a-leaf-class-approved	02a-leaf-class-approved
\$document01_repository\$	\$repositoryId\$	1.1.4567332.1.15	RG Query FindDocuments.Minimal	02a-leaf-class-approved	02a-leaf-class-approved

In the Results Inspector you can view the request and response messages for each test step, as well as full logs and error messages.

When all of the tests you need to run are colored blue, you can notify your Test Manager that your tests are ready to be evaluated. Remember to also record your ATNA audit log for your tests. Submit results to your Test Manager by email at qhintesting@sequoiaproject.org.

4.3 Initiating Gateway Tests

Take note of the endpoints and Home Community ID listed under Supporting Environment Configuration. These are the endpoints you will send your test messages to. If you are doing the tests with TLS, make sure the SAML and TLS boxes are checked. You do not need to initialize the testing environment.

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The system under test is an Initiating Gateway. Unlike the stock XDS test structure, this test environment does NOT assume that the Gateway under test is triggered by XHE transactions. It is up to the person who owns the Initiating Gateway under test to trigger the transactions required by the test cases. This test environment does not send Patient Identity Feed transactions to the system under test. Test patients are documented externally in the README tests below.

Reset - Initialize will delete all supporting simulators and Patient IDs and recreate them.

SAML
 TLS

Initialize Testing Environment

Initialization complete

System Under Test Configuration

DEMO-03 @system Configuration

Endpoints and IDs	Secure	Non-secure
Cross-Community Query	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/qry	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/qry
Cross-Community Retrieve	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/igr	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/igr
Cross-Community Document Provide	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/odp	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/odp
XDRMU	https://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/rmu	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/rmu
Register	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/r	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/r
Register On-Demand Document Entry	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/rode	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/rode
Stored Query	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/sq	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/sq
Multi-Patient Query	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/mpq	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/mpq
Update	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/upd	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/upd
RMU	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/rmu	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/rmu
Remove Metadata	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/rm	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/rm
Provide and Register	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/pr	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/pr
Remove Documents	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/rd	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/rd
Repository (1.2.34.567.10.101)	https://validation.sequoiaproject.org/14430ncisim/dem03_community1/ig/rp	http://validation.sequoiaproject.org/8780ncisim/dem03_community1/ig/rp
homeCommunityId	urn:oid:1.2.34.567.8.1	

The first tests listed, IG.Init.Community1 and IG.Init.Community2, must be run first, and must be successful before other Initiating Gateway tests will work. These tests submit documents to the simulator repositories for you to query.

Utilities run to initialize environment

Test: IG.Init.Community1 - Submit first set of documents for QTFTEST-002 03/02 Nov 02, 2022

Test: IG.Init.Community2 - Submit second set of documents for QTFTEST-002 03/02 Nov 02, 2022

Initiating Gateway X - Required Tests

Tests	0
Successes	11
Failures	2
Not Run	0

Test: IG.Readme QueryRetrieve - Readme file for Initiating Gateway testing

Test: IG.Query/FindDocuments.Minimal - IG generates OD request satisfying minimum requirements 21:29 Feb 25, 2023

Test: IG.Retrieve.Community1 - Initiating Gateway retrieves document from Community 1 21:29 Feb 25, 2023

To run the Initiating Gateway tests, send the appropriate message from your system to the simulator endpoints listed. When the simulator has sent back a response run the test in the tool by clicking the arrow by the test name. The tool will search the simulator logs for a transaction

that matches the test requirements. When it finds an appropriate response, the test will be marked “passed”.

The screenshot displays the XDS Toolkit interface with a 'Conformance Tests' section. A table lists various tests with their URLs and status. Below the table, several test results are shown, including 'Initiating Gateway X - Required Tests' which is currently failing. The failure message states: 'No Cross-Community Query transactions found in simlog for demo03_community1'. Other tests shown include 'IG.Init.Community1 - Submit first set of documents for QTFTTEST-002' and 'IG.Retrieve.Community1 - Initiating Gateway retrieves document from Community 1'.

Test Name	URL	Status
ACRNU	https://validation.sequoiaproject.org/8760nciam/demo03_community2/reg-ncnu	Passed
Register	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-ib	Passed
Register On-Demand Document Entry	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-iodde	Passed
Stored Query	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-ig	Passed
Multi-Patient Query	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-mpq	Passed
Update	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-update	Passed
RMU	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-ims	Passed
Remove Metadata	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-ims	Passed
Provide and Register	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-irb	Passed
Remove Documents	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-ird	Passed
Repository (1.1.4567332.1.14)	https://validation.sequoiaproject.org/14430nciam/demo03_community2/reg-irp	Passed
demo03community1	https://validation.sequoiaproject.org/8760nciam/demo03_community2/reg-irp	Passed

Initiating Gateway X - Required Tests

Tests: 0
 Successes: 0
 Failures: 1
 Not Run: 0

Test: IG.Retrieve.Community1 - Initiating Gateway retrieves document from Community 1 (21:29 Feb 25, 2023)

Message: No Cross-Community Query transactions found in simlog for demo03_community1

5 FINISHING UP

When you are finished testing and are ready to have your tests validated, send an email with the permanent links for all the testing completed and all of your ATNA logs to be evaluated by email your Sequoia Project Test Manager to ghintesting@sequoiaproject.org.

Remember to log out of all of the systems and shut down all of the windows that have been opened!

Our standard business workflow is to return your report within 5 business days of your submission of testing results. Please ensure someone from your organization is available to redo any failed or partially verified tests.